

## FAQ for DNA

Q. Do buccal swab standards count as items towards the maximum number of items that can be submitted?

A. No, per the DNA Submission Guidelines Rev. August 15, 2013 “known standards from victim(s) or subject(s) will not count against the number of items that may be submitted.” (add link to guidelines)

Q. How many swabs should be collected from an item/area if looking for touch DNA (e.g. hand gun, knife, or steering wheel)? If multiple swabs are collected from an item/area, should these swabs be packaged together?

A. Typically, no more than 2 swabs (one wet and one dry) per item or area should be collected (add hyperlink to Evidence Handbook sample collection method Chapter 5, pg 62, C.). The sample collected from an item/area should be concentrated on as few swabs as possible to ensure maximal DNA recovery. Swabs should be packaged together if they originate from the same area of an item (e.g. mouth of a soda bottle or steering wheel). Wet and dry swabs collected from an item can be packaged together. If multiple areas of an item are swabbed based on case specific information (e.g. a swab of a blood stain located on a gun and a swab of the trigger, grips and hammer) each set of swabs should be packaged separately and labeled accordingly.

Q. Should each swab box be labeled even if the outer packaging is labeled?

A. The labeling of a swab box that is contained within other packaging is not required but is a very good practice.

Q. What should be done when evidence collected is wet?

A. Proper handling and packaging is item dependent. All clothing should be dried thoroughly, placed in a paper package, such as a paper evidence bag, and sealed properly. Items such as soiled diapers or saturated feminine hygiene products are very difficult/impossible to dry and should be placed in a sealed plastic container and frozen. Items of this type need to remain frozen to prevent loss of DNA evidence. Collection and storage of condoms is discussed in the Physical Evidence Handbook, Chapter 6 page 69 (add hyperlink).

Q. Should an evidence item be submitted for DNA or fingerprint/Identification analysis? Which methods are best for this evidence/situation?

A. The answer to this question is evidence and situation dependent; therefore, it may be best to contact the laboratory to assist in making this determination. As a general rule of thumb, rough/textured surfaces tend to be better for DNA and poor for fingerprints. Both types of analysis may be performed on a given item; however both units must be informed prior to processing, as methods employed by the laboratory vary depending on the types of analysis requested.

Q. Can hairs from the crime scene be ‘matched’/compared to a suspect head hair standard? Why wasn’t DNA obtained from a questioned hair?

A. Microscopic hair comparisons are no longer performed at the Wisconsin Crime Laboratory Bureau (WCLB). If a questioned hair is critical to the case, it will be examined by a DNA Analyst for cellular material on the root. If cellular material is present, DNA testing will be attempted. If the hair does not have cellular/root material, the report will indicate that the hair is unsuitable for DNA analysis. Generally, most recovered hairs are shed hairs, which do not have cellular/root material present and do not contain the DNA that is tested at the WCLB. If a questioned hair is critical to the investigation, please contact the laboratory to discuss alternative methods not performed by the WCLB.

Q. Why has the lab limited intake of touch DNA samples?

- A. It should be noted that touch DNA does not include cigarette butts, swabbings from cans, bottles, straws or other items of which the substance being tested is most likely saliva, or items submitted for wearer such as shirts, shoes, hats, etc. where there is probability of prolonged contact.

The Submission Guidelines for DNA (see WILENET) include limits on submission of touch DNA samples on non-violent crimes (typically property crimes) and were implemented to improve efficiencies in the DNA Analysis Unit, ultimately providing submitters valuable results in a much more timely manner. The submission of touch DNA samples was increasing annually requiring more time and resources in the DNA unit but seldom providing viable (CODIS eligible) results. Please note that touch DNA samples may still be submitted for violent crimes against a person.

**Q. Why should drugs be separated from packaging when submitted to the lab for both Controlled substance and DNA?**

- A. If controlled substances are still contained within the packaging, the DNA analyst must wait to begin processing the packaging until after the Controlled Substances Unit has removed the unknown substances. Removing the unknown substances from the packaging prior to submission improves the efficiency of working the case for all units in the laboratory.

**Q. Why should a brief case scenario be provided?**

- A. Some background information on a case helps the DNA analyst decide on the best methods to examine and locate biological samples on evidence items. In addition, background information (e.g. location of item recovery) is important in determining if the DNA results obtained meet the FBI requirements for CODIS eligibility. The entire police report is not necessary to include, but key details such as where an evidence item was collected, if the homeowners are smokers (if a cigarette butt is submitted in a burglary), if the victim in an alleged sexual assault had a consensual sexual partner, will allow the DNA analyst to process a case in an efficient manner.

For example, a long sleeve t-shirt is submitted in a sexual assault case and a scenario is not provided. The analyst will initially examine the shirt for body fluids and if none are present the analyst may continue with other testing. However, if at submission the agency had provided the scenario that the t-shirt was used to bind the victim during the assault; the decisions made by the DNA analyst would have included swabbing the surface of the t-shirt.

**Q. Should stem stickers be placed around the cotton on a buccal swab?**

- A. Stem stickers are labels that can contain the name, date of birth, identification number and/or fingerprints of the person from whom the buccal swab was collected. The stickers used by some agencies were created to attach to the stem or shaft of the swab to clearly identify the source of the buccal swabs. If the sticker is secured around the cotton swab head it will potentially reduce the quantity of DNA recovered from the buccal swab and may cause contamination.